AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Exercise Biochemistry								
Course Code	BSÖ596		Couse Level	Second Cycle (Master's Degree)					
ECTS Credit	7	Workload	176 *(Hours)*	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	The purpose of this cours is to investigate the explanation of reactions occuring within an organism and investigation of the exercise-induce biochemical processes.								
Course Content	Carbohytrates,lipids,proteins,hormones and exercise-induced changes,enzyme activity,ımmune system,hematological parameters,renal function,exercise-induced changes take place.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Individual Study								
Name of Lecturer(s)									

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

Recommended or Required Reading	
1	Egzersiz Fizyolojisi,ed.E.Ergen,Nobel yayın Dağıtım,Ankara,2002
2	Biyokimya, ed.F.Gürdöl,E.Ademoğlu,Nobel Tıp Kitabevleri,İstanbul,2006
3	Biochemistry primer for exercise science, M. E.Houston,3.rd.ed.Human Kinetics,2006
4	Egzersiz ve Spor Fizyolojisi,N.Akgün,Ege Üniv.Basımevi,1994
5	Post exercise proteinuria in humans:fact and mechanism.JAMA,253:236-240,1985
6	Exercise and ımmun function,ed.L.H.Goetz,Informa Health Care,1996
7	Genetics of fitness and physical performance,C.Bouchard,R.M.Malina,L.Péruse,Human Kinetics,1997
8	Exercise Biochemistry, V.Maugois,Human Kinetics,2006
9	İnsan Biyokimyası ,ed.T. Onat,K.Emerk,E.Y.Sözmen,Palme Yayıncılık,Ankara,2002

Week	Weekly Detailed Course Contents	
1	Theoretical	Molecular organisation
2	Theoretical	Biologic membrans and transport systems
3	Theoretical	Energy systems and Bioenergetics / Oxidative phosphorylation
4	Theoretical	Carbonhydrate metabolism and exercise
5	Theoretical	Lipid metabolism and exercise
6	Theoretical	Amino acid and protein metabolism and exercise
7	Theoretical	Nucleic acids, Genetic and exercise
8	Theoretical	Midterm Exam
9	Theoretical	Blood cells and exercise
10	Theoretical	Coagulation, fibrinolysis and exercise
11	Theoretical	Charecterizations of Immun system and exercise
12	Theoretical	Hormon adaptations in exercise
13	Theoretical	Vitamins and metabolic functions of vitamins
14	Theoretical	Enzyme activities and exercise
15	Theoretical	Urine parameters and exercise
16	Theoretical	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	5	5	140
Individual Work	4	4	4	32
Midterm Examination	1	1	1	2

Final Examination	1	1	1	2
			Total Workload (Hours)	176
			[Total Workload (Hours) / 25*] = **ECTS**	7
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Knows about the differences of renal functions and urine parameters in physical exercise.
2	Knows about hormon adaptations in physical exercise.
3	Knows about how the differences of enzyme activities,hematologic parameters,immun system functions in during exercise.
4	Knows about carbonhydrates,lipids,protein metabolism and the differences of this parameters in physical exercise.
5	Knows about biological membranes,transport systems and energy systems.

Programme Outcomes *(Physical Education and Sports Master)*	
1	Uses application and problem solving skills in interdisciplinary studies.
2	Develops basic scientific knowledge and attitude appropriate to body and sport.
3	Interpret the results of test development and measurement for the development of individuals in physical education and sport.
4	Explains the scientific methods in physical education and sports.
5	o follow national and international developments in the field and maintain professional development.
6	Beden eğitimi ve spor örgütlerinin örgüt iklimi ve kültürünü tanımlar.

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5
P1	4	4	5	3	4
P2	4	4	4	5	5
P3	5	5	3	4	4
P4	5	3	4	4	3
P5	4	5	3	5	5
P6	5	4	4	3	4